

## REMARKS

The Office Action has been carefully considered and the foregoing amendment made in response thereto. The present status of the application is as follows:

- Claims 1-25 are pending in the application.
- Claims 1, 9, 10, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Coplans (U.S. Pat. No. 3,550,597) in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820).
- Claims 1, 5-11, 15-17, 19-21, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderié (U.S. Pat. No. 4,922,631) in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820).
- Claims 22, 23, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderié (U.S. Pat. No. 4,922,631) in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820), in further view of Nagano (U.S. Pat. No. 5,446,977).
- Claims 2-4, 11-14, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Coplans (U.S. Pat. No. 3,550,597) and Anderié (U.S. Pat. No. 4,922,631), in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820).

In view of the above amendment and following remarks, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-25.

1. Claims 1, 9, 10, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Coplans (U.S. Pat. No. 3,550,597) in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820). Applicant respectfully traverses this rejection.

Coplans discloses a torsion member 15 that purportedly compensates for twisting of a foot during natural walking action. According to Coplans, forward walking motion applies the most pressure to the foot starting in the lateral (i.e., outer) heel region and ending in the medial (i.e., inner) anterior region. (During this forward progression, there is little pressure on the medial heel region through the lateral anterior region.) This progressive, oblique line of pressure causes the twisting of the foot. Col. 1, ll. 11-27. During forward walking motion, torsion member 15 supports the regions under lesser pressure “by yieldably lifting the inner posterior portion of the foot when there is relatively little pressure at that region, as shown in FIG. 9, and

by yieldably lifting the outer anterior portion of the foot when there is relatively little pressure at that point.” Col. 4, ll. 13-18. The result is “a noninterrupted torsional and lifting action from the rear to the front of the foot, all three sections 16, 17, and 18 participating in a continuous torsional lifting effort.” Col. 4, ll. 35-37. This provides “with each step a comfortable lifting effort in [an] orthopedically correct manner.” Col. 4, ll. 43-45. Thus, torsion member 15 does not create or control the torsional motion between the heel and anterior regions of the foot – such motion is inherent in natural walking action. Rather, torsion member 15 translates this torsional motion into a lifting force that it applies progressively across the extent of the foot during natural walking action to compensate for pressure differences.

Dubner discloses a supportive innersole construction for footwear that includes an upper innersole element 11 and a lower innersole element 12. Col. 3, ll. 49-50; col. 5, ll. 1, 17. The upper innersole element 11 extends in the forefoot direction only to the general area of the ball of the foot, not to the toe area. Col. 5, ll. 3-7. The lower innersole element 12 extends under the upper innersole element 11 in the arch area 17. Col. 5, ll. 21-23. Below the upper innersole element 11 and the lower innersole element 12 is a sealed envelope 26 into which a molding mix is injected. Col. 5, ll. 23-25, 29-31. The molding mix (e.g., a synthetic resin) sets (i.e., solidifies) after a short period. Col. 6, ll. 19, 40. The injection typically occurs when a person first wears footwear equipped with the supportive innersole. Col. 6, ll. 20-23. The injection expands the sealed envelope 26, thereby conforming the supportive innersole to the contours of the wearer’s foot. Col. 1, ll. 5-7. The result is a rigid supportive innersole that maintains the position of the foot. Col. 1, ll. 24-26. In other words, Dubner details the structure and use of a supportive innersole that may be customized to the contours of an individual wearer’s foot. In contrast to Applicant’s invention, Dubner is not directed to prescribing torsional motion between the heel and anterior regions of the wearer’s foot.

Kraeuter et al. discloses a structural chassis 52 for a shoe that accommodates flexing of a wearer’s foot about forward and lateral push-off axes. Col. 5, ll. 29-32; col. 6, ll. 7-9. A transverse notch 62 in the chassis 52 influences the flexibility along the forward axis. Col. 6, ll. 39-41. Similarly, notches 64, 66 influences the flexibility along the lateral push-off axis. Col. 6, ll. 49-51. Notches 68 in the toe portion, as well as notches 56, 58 in the base of the arch support flange 54, permit additional flexibility about their respective positions. Col. 6, ll. 28-32, 66-67.

As seen in Krauter et al. Fig. 5, the notches 56, 58, 64, 66 extend inward from an edge of the chassis 52.

Applicant's invention, as claimed in independent claim 1, is drawn generally to a torsion system for an article of footwear. A forefoot portion of the torsion system spans substantially the entire forefoot area of the sole from a midtarsal area to a toe area and from a lateral side to a medial side. The forefoot portion has a generally smooth concave contour along its longitudinal axis. Similarly, a rearfoot portion of the torsion system spans substantially the entire rearfoot area of the sole from the midtarsal area to a heel area and from the lateral side to the medial side. An intermediate portion of the torsion system couples the forefoot and rearfoot portions. The intermediate portion is constructed of a material and configured to allow, in a pre-selected manner, rotation of the forefoot portion relative to the rearfoot portion about the longitudinal axis.

Applicant respectfully submits that the combination of Dubner with either Coplans or Krauter et al. is improper because Dubner is non-analogous prior art.

The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself.

*In re Oetiker*, 24 USPQ 2d 1443, 1446 (Fed. Cir. 1992). As stated above, Dubner deals only with customizing the fit of the supportive innersole to a wearer's foot. Accordingly, a person of ordinary skill, seeking to solve the problem of prescribing the torsional motion between the heel and anterior regions of the wearer's foot, would not be expected or motivated to look to an innersole employing an injected, fast-setting compound for fixing the position of the wearer's foot. Stated differently, Applicant's goal of prescribing torsional motion is at odds with fixing the position of the wearer's foot in a shoe.

Further, since Dubner is concerned with fixing the position of the wearer's foot, Dubner deals with a different problem than the one Applicant addresses, namely controlling torsional motion. An invention is non-obvious, if the elements in the reference deal with different

problems. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481 (Fed. Cir. 1984).

Finally, Dubner teaches away from Applicant's invention, because Dubner requires that the supportive innersole terminate at "the general area of the ball of the foot." Col. 5, l. 5. This contrasts with Applicant's invention as claimed in independent claim 1, which requires that the forefoot portion of the torsion system "span substantially the entire forefoot area of the sole from a midtarsal area to a toe area." The Dubner disclosure specifically contradicts the statement in the Office Action that the supportive innersole "can span substantially the entire forefoot area from the midtarsal are[a] to the toe area." Office Action, p. 2.

The instant rejection requires the combination of Coplans, Dubner, and Kraeuter et al. Applicant respectfully submits that, in view of the discussion above, Dubner should not be combined with the remaining references. Further, Applicant submits that Kraeuter et al. does not cure the deficiencies of Coplans, e.g., the lack of a feature to create or control torsional motion between the heel and anterior regions of the foot. Consequently, Applicant respectfully submits that claim 1 is clearly and patentably distinguished over the cited references, either alone or in proper combination, and is therefore allowable. Because claims 9, 10, and 15 depend, directly or indirectly, from independent claim 1, Applicant respectfully submits that claims 9, 10, and 15 are allowable as well.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 9, 10, and 15 under 35 U.S.C. § 103(a) as being unpatentable over Coplans in view of Dubner and Kraeuter et al.

2. Claims 1, 5-11, 15-17, 19-21, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderié (U.S. Pat. No. 4,922,631) in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820). Applicant respectfully traverses this rejection as applied to the claims as amended.

Anderié discloses a stiffening element 9, 109 that is embedded in an intermediate sole 1, 101, 201 of a shoe. The stated purpose of the stiffening element 9, 109 is to restrict bending of the shoe about axes that are transverse to the longitudinal axis of the shoe. Col. 1, ll. 64-67; col.

6, ll. 51-59. Such bending is undesirable, because it contributes to lateral instability. Col. 1, ll. 48-51. Furthermore, the stiffening element 9, 109 has no adverse effect on the torsional motion (i.e., “twistability” of the front sole region relative to the rear sole portion) of the shoe. Col. 2, ll. 20-22. Torsional flexibility in the shoe is desirable and supplied by recesses 6, 7, 106, 107, 206, 207. Col. 1, ll. 15-30, 42-44. Stiffening element 9, 109 counteracts the (undesirable) increased bending capability that is a by-product of the recesses 6, 7, 106, 107, 206, 207.

As stated above, Dubner details the structure and use of a supportive innersole that may be customized to the contours of an individual wearer’s foot. In contrast to Applicant’s invention, Dubner is not directed to prescribing torsional motion between the heel and anterior regions of the wearer’s foot. Applicant respectfully submits that:

- (i) The combination of Dubner with either Anderié or Kraeuter et al. is improper because Dubner is non-analogous prior art. *In re Oetiker*. As described above, Applicant’s goal of prescribing torsional motion is at odds with Dubner’s fixing of the position of the wearer’s foot.
- (ii) Dubner deals with a different problem (fixing of the position of the wearer’s foot) than the problem Applicant addresses (prescribing torsional motion) and, as discussed above, Applicant’s invention is non-obvious if the elements in the reference deal with different problems. *Lindemann*.
- (iii) Dubner teaches away from Applicant’s invention regarding the extent to which the forefoot portion of the torsion system spans the forefoot area of the sole from a midtarsal area to a toe area. The Dubner disclosure specifically contradicts the statement in the Office Action that the supportive innersole “can span substantially the entire forefoot area from the midtarsal are[a] to the toe area.” Office Action, p. 4.

Notwithstanding the above, Applicant has amended claim 7 to clarify the position of the aperture in the intermediate portion of the torsion system as being circumscribed by the intermediate portion. No new matter has been added, since this aspect of the aperture is disclosed clearly in Applicant’s Figure 3, for example.

The Office Action requires a combination of Anderié, Dubner, and Kraeuter et al. Applicant respectfully submits that, in view of the discussion above, Dubner should not be combined with the remaining references. Further, Applicant submits that Kraeuter et al. does not cure the deficiencies of Anderié, e.g., the lack of a feature to create or control torsional motion between the heel and anterior regions of the foot. Consequently, Applicant respectfully submits that independent claims 1 and 21 are clearly and patentably distinguished over the cited references, either alone or in combination, and are therefore allowable. Because claims 5-11, 15-17, 19, 20, and 24 depend, directly or indirectly, from independent claim 1 or 21, Applicant respectfully submits that claims 5-11, 15-17, 19, 20, and 24, as amended herein, are allowable as well.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 5-11, 15-17, 19-21, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Anderié in view of Dubner and Kraeuter et al.

3. Claims 22, 23, and 25 stand rejected under 35 U.S.C. § 103(a). The Office Action refers to “references applied to claim 21 in paragraph 4 above ... .” Office Action p. 4 (emphasis added). Applicant requests clarification of this rejection, since paragraph 4 in the Office Action neither implicates claim 21 nor is “above” the paragraph detailing this rejection. In the interest of addressing the instant rejection, Applicant assumes for the purpose of this Amendment and Response that the Examiner meant to refer to references applied to claim 21 in paragraph 3. Consequently, the following discussion assumes that the Office Action asserts that claims 22, 23, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderié (U.S. Pat. No. 4,922,631) in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820), in further view of Nagano (U.S. Pat. No. 5,446,977). Applicant respectfully traverses this rejection.

Nagano discloses a cycling shoe with a cleat-attaching portion that selectively allows the addition or removal of a cleat. Col. 1, ll. 45-48. Anti-slip projections 13a, 13b, 13c are arranged on the bottom sole 4 and operate to position the shoe when placed in a non-cleat attaching pedal. Col. 7, ll. 35-39. Consequently, the extent of movement of the toe is constrained to promote “smooth and comfortable” pedaling. Col. 7, ll. 30-34.

As discussed above, Dubner is non-analogous prior art with respect to Anderié and Kraeuter et al. Accordingly, Applicant respectfully submits that Dubner may not be combined with Anderié and Kraeuter et al., as the rejection requires. Furthermore, Nagano teaches away from Applicant's invention, because Nagano constrains movement of the toe (and, consequently, the foot) when pedaling, while Applicant promotes pre-selected rotation of the forefoot (that includes the toe) relative to the rearfoot. Consequently, the combination of Anderié, Dubner, and Kraeuter et al. in further view of Nagano is insufficient to make Applicant's invention obvious to one of ordinary skill in the art. In addition, claims 22, 23, and 25 depend from independent claim 21. Because claim 21 is allowable and clearly and patentably distinguished over the cited references, either alone or in proper combination, Applicant respectfully submits that claims 22, 23, and 25, all depending from claim 21, are allowable as well.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 22, 23, and 25 under 35 U.S.C. § 103(a) as being unpatentable over Anderié in view of Dubner and Kraeuter et al., in further view of Nagano.

4. Claims 2-4, 11-14, and 18 stand rejected under 35 U.S.C. § 103(a). The Office Action refers to "references applied to claims 1 and 9 in paragraphs 3 and 4 above." Office Action p. 5 (emphasis added). Applicant requests clarification of this rejection, since paragraphs 3 and 4 in the Office Action do not implicate claims 1 and 9. In the interest of addressing the instant rejection, Applicant assumes for the purpose of this Amendment and Response that the Examiner meant to refer to references applied to claims 1 and 9 in paragraphs 2 and 3. Consequently, the following discussion assumes that the Office Action asserts that claims 2-4, 11-14, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Coplans (U.S. Pat. No. 3,550,597) and Anderié (U.S. Pat. No. 4,922,631), in view of Dubner (U.S. Pat. No. 3,903,621) and Kraeuter et al. (U.S. Pat. No. 5,915,820). Applicant respectfully traverses this rejection.

Claims 2-4, 11-14, and 18 depend, directly or indirectly, from independent claim 1. As discussed above, Dubner is non-analogous prior art with respect to Coplans, Anderié, and Kraeuter et al. Applicant respectfully submits that Dubner should not be combined with Coplans, Anderié, and Kraeuter et al., as the rejection requires. As discussed above, these references do not render independent claim 1 obvious. Because claim 1 is allowable and clearly

and patentably distinguished over the cited references, either alone or in proper combination, Applicant respectfully submits that claims 2-4, 11-14, and 18, all depending directly or indirectly from claim 1, are allowable as well.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 2-4, 11-14, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Coplans and Anderié, in view of Dubner and Kraeuter et al.



### CONCLUSION

In view of the foregoing, Applicant submits that claims 1-25 are clearly and patentably distinguished over the cited references, either alone or in proper combination, and are therefore allowable. Applicant respectfully requests entry of this Amendment and Response, reconsideration, and early favorable action by the Examiner.

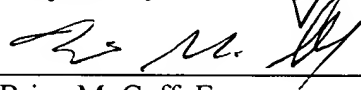
The Examiner is cordially invited to contact Applicant's undersigned representative at the number listed below to discuss any outstanding issues.

Date: February 6, 2002  
Reg. No. 44,691

Tel. No.: (617) 310-8085  
Fax No.: (617) 790-0332  
Email: [gaff@tht.com](mailto:gaff@tht.com)

VER 9/00  
GAFFBM\257\10.2262306\_1

Respectfully submitted,

  
\_\_\_\_\_  
Brian M. Gaff, Esq.  
Attorney for Applicant  
Testa, Hurwitz, & Thibeault, LLP  
High Street Tower  
125 High Street  
Boston, Massachusetts 02110

**VERSION OF AMENDED ITEMS WITH MARKINGS TO SHOW CHANGES MADE**

February 6, 2002

**IN THE CLAIMS:**

7. (Amended) The torsion system of claim 1, wherein the intermediate portion defines at least one circumscribed aperture.